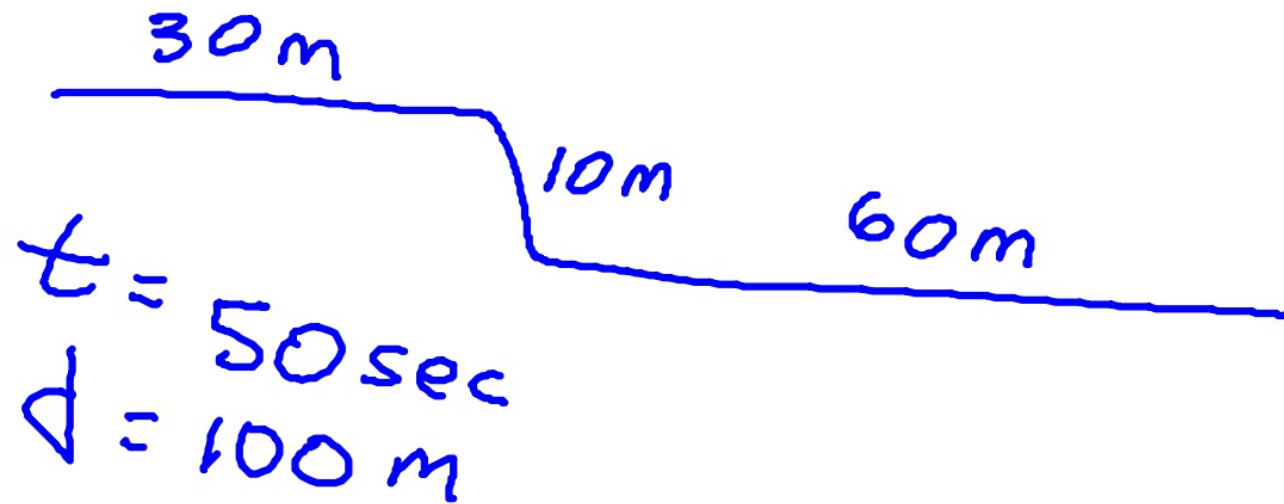


distance	$d$	$s$	$m$
displacement	$x$	$v$	$m$
speed	$s$	$s$	$m/s$
velocity	$v$	$v$	$Km/hr$
acceleration	$a$	$v$	$m/s^2$

Scalar/Vector

Instantaneous Speeds  
Average Speed

$$S = \frac{d}{t} = \frac{100 \text{ m}}{50 \text{ s}} = 2 \text{ m/s}$$

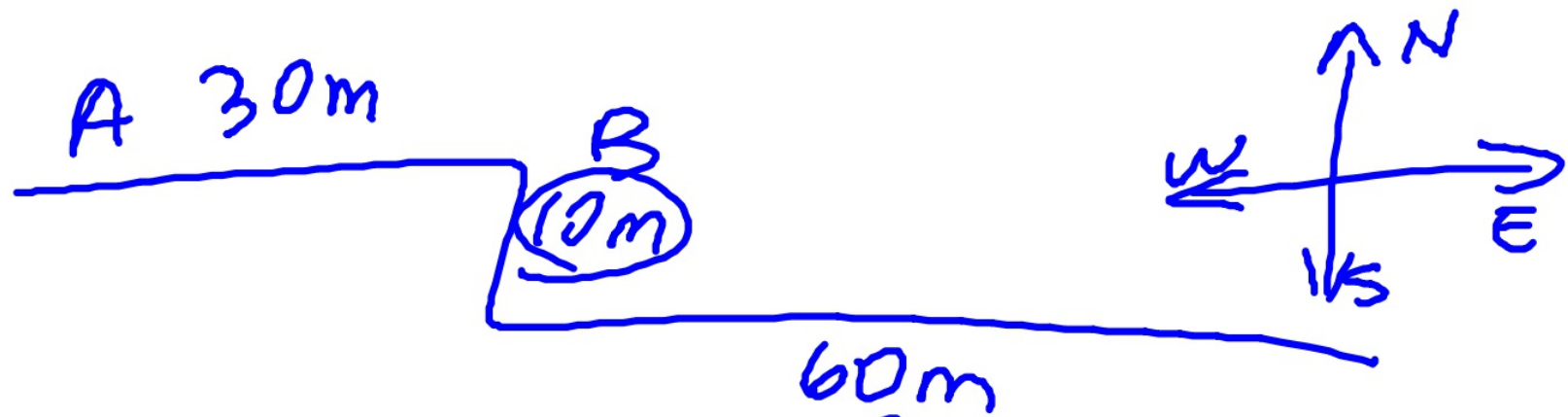


When velocity is constant  
the acceleration is zero

$$a = \frac{\Delta v}{\Delta t}$$

Increase in velocity: acceleration  
Decrease in velocity: deceleration

FRANKIE Room G707 Table D  
Seat 3.



What is the displacement of B  
10 m  $\downarrow$  South

What is the distance of A?  
30 m

If time is 15 sec on Leg A what is  
the average velocity

data

$$v = ?$$

$$x = 30 \text{ m E}$$

$$t = 15 \text{ s}$$

equation

$$v = \frac{x}{t}$$

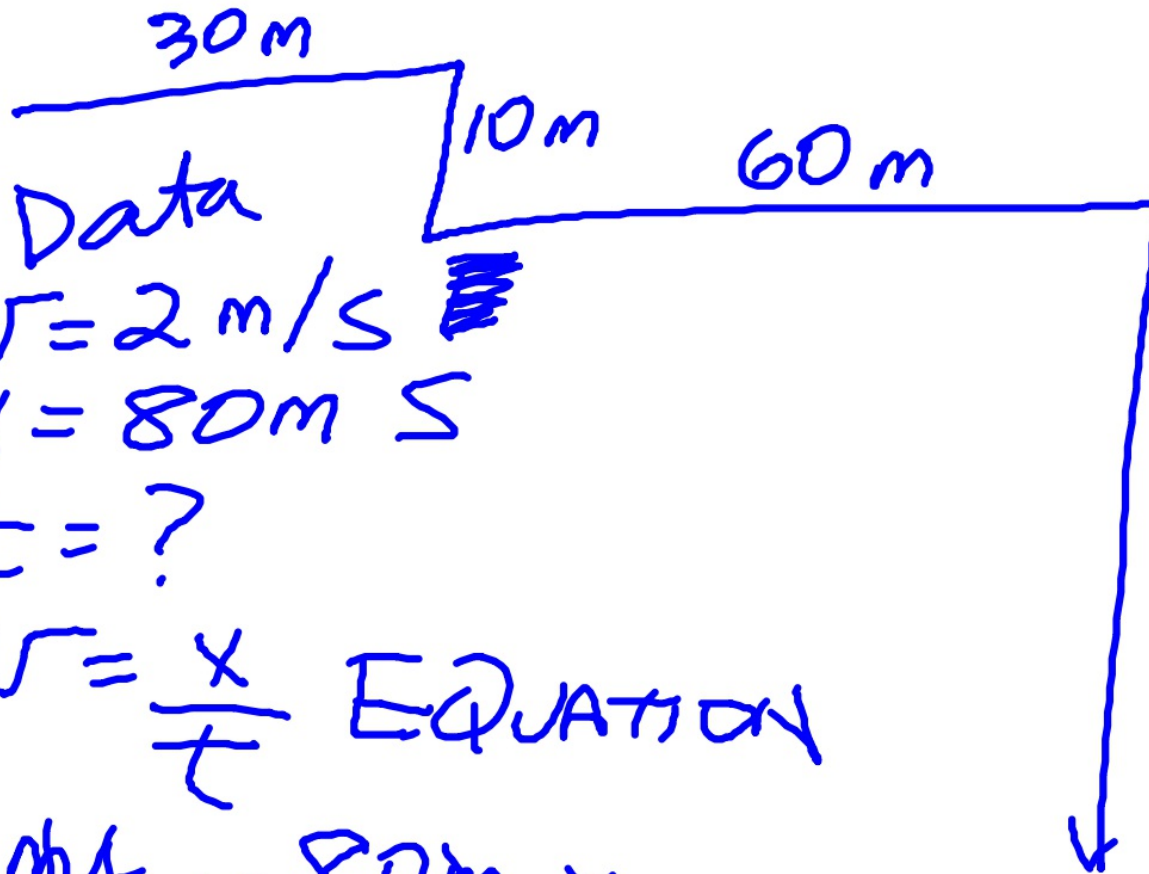
Substitution

$$= \frac{30 \text{ m E}}{15 \text{ s}} = 2 \frac{\text{m}}{\text{s}} \text{ E}$$

ANSWER

UNITS/direction





Data

$$V = 2 \text{ m/s}$$

$$X = 80 \text{ m}$$

$$t = ?$$

$$V = \frac{X}{t} \text{ EQUATION}$$

$$\frac{2 \text{ m/s}}{2 \text{ m/s}} = \frac{80 \text{ m}}{2 \text{ m/s}}$$

$$t = \frac{80}{2} \text{ s} = 40 \text{ s}$$

